



Deformation, Fracture and Microstructure of Metallic Materials

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Message from the Guest Editors

As is well known, deformation and fracture mechanisms are strongly dependent on the initial microstructure of materials, which plays a determining role in defining their mechanical properties. In addition, exploring the evolution of microstructure during deformation is also extremely important for understanding of deformation and fracture mechanisms. Special attention will be given to the following two aspects (though consideration will not be restricted to submissions on these): (1) rational design of initial microstructures to improve mechanical properties; (2) characterization and analysis of the evolution of deformation microstructures to reveal the deformation and fracture mechanisms.

The aim of this Special Issue is to collect the latest scientific achievements in the microstructure-related deformation and fracture behavior of various metallic materials under monotonical or cyclic loads. All approaches will be considered, including theoretical, numerical, and experimental contributions. Reviews, regular articles, and technical notes are all welcome.





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Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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